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VOL. 4 No. 12

MARCH 26, 1954

Cooperative
ECONOMIC INSECT REPORT

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U. S. DEPARTMENT OF AGRICULTURE

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PLANT PEST CONTROL BRANCH

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL BRANCH

ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

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Economic Insect Survey Section
Plant Pest Control Branch
United States Department of Agriculture
Washington 25, D. C.

Volume 4 March 26, 1954 No. 12

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

ALFALFA WEEVIL adults active in areas of Utah and Maryland (page 232).

GREENBUG infesting oats in southern Mississippi. Appearing in barley in Anderson County, Kansas. (page 233).

Heavy flights of ARMYWORM moths in Tensas Parish, Louisiana. (page 234).

EASTERN TENT CATERPILLAR infestations general on peach and plum trees in Louisiana. (page 235).

BEET LEAFHOPPER heavy on spinach in Crystal City, Texas area. (page 236).

BARK BEETLES causing considerable damage to pine in southern Arkansas. (page 238).

Summary of INSECT CONDITIONS in 1953 in Arkansas, (page 240).

Fall survey 1953 - of ALFALFA INSECTS in New Jersey. (page 242).

Distribution of several introduced species of WIREWORMS. (page 243).

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NOTICE

Inquiries have been received relative to the type of current reports desired for inclusion in the Cooperative Economic Insect Report. Briefly, a good note should show common and scientific name of pest, host attacked, geographical location, extent and intensity of infestation (percent damage, if possible), date and observer. Also any comments the observer wished to make, such as comparisons with former infestations, predictions, etc. A few samples are offered below:

1. Greenbug (Toxoptera graminum) infestations severe (250 per linear foot) in wheat in southern half of the State. Heavy damage in many fields; damage up to 75 percent in several fields in Cranford area. Threatening (85 per linear foot) in northern half of State. Few beneficial insects observed. Insecticides being applied throughout State.

2. Horn fly (Siphona irritans) populations on cattle low (75-150 per animal) in Jones County.

3. European red mite (Metatetranychus ulmi) continuing to build up in large numbers on apples in Atcheson, Glebe and Marsham Counties. All stages present. If dry weather continues, populations are expected to be heavier than in July of last year and infestation in these counties may be severe before apple harvest.

4. A cutworm (Agrotis gladiaria)-det. Capps-causing heavy damage to alfalfa, clover and tobacco in beds in eastern counties. Some tobacco beds 25 percent destroyed. Appearance of this species in outbreak numbers unusual for State.

* *

First Reported Records of Season (by areas)

GRASSHOPPERS hatching in Socorro and Bernalillo Counties, New Mexico, March 13. CLOVER LEAF WEEVIL larvae appearing in alfalfa in southwestern Utah. LESSER CLOVER LEAF WEEVIL and CLOVER ROOT CURCULIO adults found in alfalfa in Maryland, March 17-19. SAY STINK BUG appearing on barley in Arizona. PLUM GOUGER observed on wild plum at Tyler, Texas. POTATO PSYLLID collected at Mesa, Arizona. Eggs of a PINE SAWFLY hatching in Ashley County, Arkansas, March 10. CUTWORMS appearing in alfalfa in Maryland.

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Reports in this issue are for the week ending March 19 unless otherwise designated.

WEATHER FOR THE WEEK ENDING MARCH 23, 1954

For the second consecutive week a major depression crossed the Country. Entering the United States in the Pacific Northwest on the 16th and reaching the Atlantic Coast on the 20th, it brought moderate to heavy precipitation to most sections west of the Continental Divide and east of the Mississippi, but only a few hundredths of an inch to the central and lower Great Plains. The week was a few degrees warmer than normal in the Great Plains, but several degrees cooler than normal elsewhere. There were no unusual extremes, except in the extreme Southeast where freezing occurred early in the period.

High winds for the third consecutive week caused severe duststorms in the central and lower Great Plains. Small grains in large areas suffered additional damage, pastures were retarded, and field work delayed. Water shortages continued in parts of Oklahoma, Kansas, southern Iowa and southwestern Missouri. In the latter area stockwater hauling again is becoming a common occurrence. Dry subsoil was reported as far east as West Virginia and some water hauling is necessary in Kentucky. In southern Iowa and northwestern Illinois moisture in the first 5 feet of soil is only one-half of normal.

General rains on several days in the far West that totaled over an inch in most of California and parts of Arizona and Utah and over one-half inch in most of the remainder of the Plateau region, were very beneficial to ranges and crop lands.

Heavy snowfall in the Sierra Nevada Mountains increased depths by as much as 40 inches at some stations. Early in the week a heavy snowstorm in the western portions of the central and northern Great Plains left up to 12 inches on the ground, but by the end of the period the extent of the cover was reduced to sections in the western Dakotas, eastern Montana and eastern Wyoming where the greatest depths generally did not exceed 3 inches. Heavy snowfall occurred in northern New England on the 19th and 20th and at Millinocket, Maine, the depth at the end of the week was 38 inches, 10 inches more than at the end of the previous week. (Weather continued on page 239).

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - N. MEX. Newly-hatched nymphs beginning to appear in some sheltered places in Socorro and Bernalillo Counties; however, these will probably starve out. (Dobson).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - KANSAS Larval mortality in infested stalks examined: Cloud County 83 percent, Ottawa County 81 percent, Dickinson County 67 percent. (Matthew). NEW MEXICO - Overwintered well as far north as Albuquerque. Apparently high percentage of parasitism. (Dobson).

CLOVER LEAF WEEVIL (Hypera punctata) - LOUISIANA - Larvae averaging seven per square foot on white clover in East Baton Rouge Parish. Considerable foliage ragging. (Burns). UTAH - Larvae causing light damage to alfalfa at Santa Clara and Washington. (Knowlton). MARYLAND - One to four larvae per alfalfa plant in Anne Arundel, Caroline and Queen Annes Counties. A few adults in alfalfa in Anne Arundel and Cecil Counties. (U. Md., Ent. Dept.).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - MARYLAND - One adult found in alfalfa, Cecil County, March 18. (Bissell).

ALFALFA WEEVIL (Hypera postica) - UTAH - Adults active in alfalfa fields in Washington, Kane, Utah, Sevier and Juab Counties. (Knowlton). MARYLAND - Adults becoming active in alfalfa fields in Anne Arundel, Caroline, Cecil and Queen Anne Counties. Population observed. (U. Md., Ent. Dept.).

CLOVER ROOT CURCULIO (Sitona hispidula) - MARYLAND - A few adults found in alfalfa fields in Anne Arundel, Caroline, Cecil and Frederick Counties, March 17-19. (U. Md., Ent. Dept.).

PEA APHID (Macrosiphum pisi) - LOUISIANA - Heavy infestation on peas (Lathyrus hirsutus) in Tensas Parish. Light infestations on vetch, winter peas and alfalfa in Avoyelles, Red River and Bossier Parishes. (Burns). KANSAS - No pea aphids in fields surveyed in central counties. (Matthew). TEXAS - Light local infestation in wheat near Vernon. Beneficial insects preventing build-up. (Davis, Randolph). UTAH - Common on alfalfa in Washington County. No outbreaks observed. (Knowlton). MARYLAND - Scattered in alfalfa fields in Anne Arundel and Caroline Counties. (U. Md., Ent. Dept.).

CORN LEAF APHID (*Rhopalosiphum maidis*) - TEXAS - Light infestation in local areas near Rockwall and Canton. Lady beetles and lacewing flies keeping aphids under control. (Garner, Berry). ARIZONA - Extremely numerous on barley at Mesa. Also appearing on barley at Yuma but lady beetles numerous and should keep in check. (Ariz. Coop. Rept.).

APHIDS - NEW MEXICO - Epidemic numbers on alfalfa as far north as Los Lunas and Belen in Valencia County and around Estancia in Torrance County. Recent cold weather slowed infestations considerably in Eddy, Chaves, Lea and Dona Ana Counties. (Dobson, March 13).

COWPEA APHID (*Aphis medicaginis*) - LOUISIANA - Heavy infestation on peas (*Lathyrus hirsutus*) in Tensas Parish. Light on vetch in Rapides Parish. (Burns).

ENGLISH GRAIN APHID (*Macrosiphum granarium*) - KANSAS - Infesting wheat in Riley and Anderson Counties. Widespread but nowhere abundant. (Matthew).

GREENBUG (*Toxoptera graminum*) - MISSISSIPPI - Infestations on oats observed or reported over southern half of State. (Bennett). KANSAS - One winged adult and several nymphs observed in barley in Anderson County. None found in fields examined in central counties. (Matthew). OKLAHOMA - Infestation in Canadian and Kingfisher Counties confined primarily to sandy areas. Infestation in southern Payne County and Logan County declining due to parasites and predators. (Dahms).

CUTWORMS - LOUISIANA - *Peridroma margaritosa* and *Agrotis ypsilon* being taken in light traps in East Baton Rouge, Tensas, and Madison Parishes. *Periodroma margaritosa* larvae averaging two per square foot in Bossier Parish. (Burns). TEXAS - Medium to heavy infestation on grains and vegetables near Navasota, Bellville, Linden and Jacksonville. (Hughes, Powell, Roark, Wipprecht). UTAH - Moderately abundant in a few Kane and Washington County alfalfa fields. Some army cutworms involved. (Knowlton). MARYLAND - None to 2 larvae per plant in alfalfa fields in Anne Arundel and Caroline Counties. (U. Md., Ent. Dept.).

YELLOW-STRIPED ARMYWORM (*Prodenia ornithogalli*) - TEXAS - Light on oats near Navasota, Brazos County. Twelve larvae per 12 sweeps. Damage very slight. (Wipprecht).

ARMY CUTWORM (*Chorizagrotis auxiliaris*) - KANSAS - Damage to fall-seeded alfalfa in fields of Anderson, Shawnee, Wabaunsee, and Riley Counties. Five larvae per square foot in more heavily infested fields. (Matthew).

CORN EARWORM (*Heliothis armigera*) - LOUISIANA - Moths observed in clover and alfalfa fields in East Baton Rouge and Bossier Parishes. Occasional moth being taken in light traps located in East Baton Rouge and Tensas Parishes. (Burns).

ARMYWORM (*Pseudaletia unipuncta*) - LOUISIANA - Heavy flights of moths at light traps in Tensas Parish. Light numbers at traps in East Baton Rouge and Madison Parishes. (Burns).

SAY STINK BUG (*Chlorochroa sayi*) - ARIZONA - A few appearing on ripening barley at Yuma and in Wellton area. (Ariz. Coop. Rept.).

LEAFHOPPERS - UTAH - *Aceratagallia sanguinolenta*, *Dikraneura* sp. and others active in alfalfa, wheat, barley and orchards throughout State. (Knowlton).

LYGUS BUGS - UTAH - Rather numerous in some alfalfa fields and orchards in parts of Washington County. *Lygus elisus* and *L. lineolaris* most numerous. *Lygus elisus* active in smaller numbers in Cache, Box Elder, Utah, Juab, Sevier and Kane Counties. (Knowlton).

BROWN WHEAT MITE (*Petrobia latens*) - OKLAHOMA - Found in most fields in western and southwestern Oklahoma but population generally below 10 per linear foot. (Dahms). TEXAS - Medium to heavy on wheat over widespread areas near Vernon and Pompa. (Gouldy, Davis, Randolph).

SOUTHERN FIRE ANT (*Solenopsis xyloni*) - TEXAS - Medium infestations on grain seeds in local areas of Washington County. (Weaver).

White-Fringed Beetle Survey: A recent larval survey resulted in finding of two specimens at Fort Gaines in Clay County, GEORGIA. These were the first specimens tht have been found in Clay County for more than three years during which time repeated inspections were made. The survey also revealed extensions to known infestations in several localities in infested states. The greatest acreage recorded was in Conecuh County, ALABAMA, and Candler and Washington Counties, GEORGIA, where several hundred additional acres involving cultivated land were found infested. (WFB Cont. Proj., Feb. Rept.).

FRUIT INSECTS

EASTERN TENT CATERPILLAR (*Malacosoma americanum*) - LOUISIANA - General infestation throughout State on wild cherry, peach, plum and *Crataegus* spp. (Burns).

A GEOMETRID - TEXAS - Light widespread infestation on buds and young leaves of peach trees in Smith and Cherokee Counties. Not much damage expected. (Hughes).

PLUM GOUGER (*Anthonomus scutellaris*) - TEXAS - Light local infestation on wild plums near Tyler. First occurrence of year. (Davis).

LESSER PEACH TREE BORER (*Synanthedon pictipes*)- TEXAS - Light to heavy infestation on peach trees over widespread area in Smith and Cherokee Counties. (Davis).

BLACK PEACH APHID (*Anuraphis persicae-niger*) - UTAH - Population damagingly abundant on twig bark in young orchard at Santa Clara. (Knowlton).

A GRAPE LEAFHOPPER (*Erythroneura variabilis*) - ARIZONA - Becoming numerous in some areas near Mesa. One report of migration from eucalyptus and orange to grape in Maricopa County. (Ariz. Coop. Rept.).

CITRUS THRIPS (*Scirtothrips citri*) - ARIZONA - Becoming numerous on citrus throughout Salt River Valley. (Ariz. Coop. Rept.).

COWPEA APHID (*Aphis medicaginis*) - ARIZONA - Infesting terminal growth of citrus at Mesa. (Ariz. Coop. Rept.).

TRUCK CROP INSECTS

CABBAGE LOOPER (*Trichoplusia ni*) - ARIZONA - Some fields of lettuce at Phoenix treated. (Ariz. Coop. Rept.).

A DARKLING BEETLE (*Blapstinus castaneus*) - ARIZONA - Girdling tomato stems underground in Yuma area; treatment necessary. Some damage to watermelon on Yuma Mesa. (Ariz. Coop. Rept.).

POTATO PSYLLID (*Paratrioza cockerelli*) - ARIZONA - Adults common in sweeps from citrus in Mesa area. (Ariz. Coop. Rept.).

ONION THRIPS (*Thrips tabaci*) - UTAH - Injuring onions at Santa Clara, St. George, Rockville and Washington. (Knowlton). ARIZONA - Increasing on onions in all fields examined at Mesa. (Ariz. Coop. Rept.).

THRIPS - ARIZONA - Prevalent on leaves of squash at Yuma; some injury. (Ariz. Coop. Rept.).

FLEA BEETLES - ARIZONA - Larvae injuring radishes and turnips at Mesa. (Ariz. Coop. Rept.).

Heavy local infestation of APHIDS, THRIPS and LEAFHOPPERS on crucifers in Rains County, TEXAS. (Cleveland).

APHIDS - GEORGIA - Heavy infestations on cabbage and turnips in Thomas, Berrien, and Brooks Counties. (Rawls, Williams). ARIZONA - A few appearing on tomatoes in Yuma Valley. Some lettuce treated for aphids at Phoenix. (Ariz. Coop. Rept.). VIRGINIA - Light to heavy numbers of cabbage aphids and green peach aphids on overwintering kale and collards in Norfolk area. (Brubaker, Greenwood, Hofmaster).

BEET LEAFHOPPER (*Circulifer tenellus*) - TEXAS - Heavy infestation on spinach over widespread area near Crystal City. Curly-top virus very high in spinach. (Richardson).

WIREWORMS - GEORGIA - Moderate damage to tobacco and tomato transplants in Cook County. (Williams).

STRAWBERRY CROWN BORER (Tyloderma fragariae) - ARKANSAS - Damage heavy in many fields in 1953. Live pupae and adults found in fields in February. (Barnes, Warren).

A ROOTWORM (Paria sp.) - ARKANSAS - Average of 2 live larvae per plant in one field in northwest area in February. (Barnes, Warren).

COTTON INSECTS

PINK BOLLWORM (Pectinophora gossypiella) - MEXICO - As of March 15, debris inspection in northeastern Mexico shows that 6.31 pink bollworms have been found per 100 bolls inspected of the 1953 cotton crop. This compares with 1.84 and 4.23 per 100 bolls in 1952 and 1951. Greatest increases per 100 bolls compared with 1952 crop are in cotton areas of Nuevo Laredo to Villa Acuna and in sections outlying these points. Survival rate showed only a small increase in northern Tamaulipas or the Matamoros section. The amount of material to harbor pink bollworm is reported to be 92 percent less in the Matamoros section, 25 percent less in Monterrey-Nuevo Laredo section and about the same in Northern Coahuila section compared with the previous season. It appears, therefore, that there will be fewer surviving pink bollworms in this area to infest the new crop this year than for the past three years, because of the marked reduction in surface debris. (West).

COTTON LEAF PERFORATOR (Bucculatrix thurberiella) - ARIZONA - Reported on volunteer cotton in Maricopa County first week in March. Adults numerous on globe mallows at Queen Creek, Maricopa County. (Ariz. Coop. Rept.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

A BUDMITE (Aceria paradianthi) - CALIFORNIA - Heavy local infestation found on carnation at Redlands, March 11. This find is 51 miles east of nearest previously reported infestation at Sierra Madre. (Armitage).

A PINE SAWFLY (Neodiprion sp.) - ARKANSAS - Eggs beginning to hatch in Ashley County March 10. Egg deposits light in scattered local areas. (Barnes, Warren).

NANTUCKET PINE MOTH (*Rhyacionia frustrana*) - ARKANSAS - Considerable damage to pure stand plantations in Ashley and adjacent counties. By March 10, most adults had emerged. (Barnes, Warren).

A TURPENTINE BEETLE (*Dendroctonus* sp.) - ARKANSAS - Found in localized area in Pulaski County, March 11. (Barnes, Warren).

BARK BEETLES (*Ips* spp.) - ARKANSAS - Have caused considerable damage in southern counties. Ips infestations in slash found as far north as Faulkner County. Standing timber, weakened from drought, has been attacked in the southern pine belt, including Ashley, Cleveland, Dallas and Union Counties. Heavy local infestation in adjacent counties. (Barnes, Warren).

INSECTS AFFECTING MAN AND ANIMALS

A BLOODSUCKING CONENOSE (*Triatoma* sp.) - TEXAS - Has bitten several members of a family residing near Driscoll, Nueces County. Medium infestation in bedding and upholstery. (Nolan).

CATTLE GRUBS - OKLAHOMA Heel fly activity greater than normal for time of year. (Bower). TEXAS - Light infestation of heel flies attacking cattle over widespread area in Knox County. (Bryan).

LONE STAR TICK (*Amblyomma americanum*) - ARKANSAS - Males found December 17, 1953. Females found half engorged March 12 in northwest area. (Barnes, Warren).

LICE ON LIVESTOCK - ARKANSAS - Infestation heavy on many farms over State, causing hair to slip in many herds. (Barnes, Warren). TEXAS - Light widespread infestation on cattle near Benjamin. (Bryan). Heavy widespread infestation on cattle near Fairfield. (Juren). General infestations in herds in Hunt County. (Long). NEW MEXICO - Two hundred cattle heavily infested in Valencia County. Infestations for State about average. (Dobson, March 13). UTAH - Cattle lice causing concern in most counties. (Knowlton).

COCKROACHES - GEORGIA - Blattella germanica, Periplaneta americana, and P. brunnea infestations were light to moderate in houses, stores and other buildings in Savannah during winter. (Laake).

MISCELLANEOUS INSECTS

TEXAS LEAF CUTTING ANT (Atta texana) - TEXAS - Medium to heavy near Weimar, Colorado County. One hundred thirty colonies treated. (Moore). Medium infestation near Bryan, Brazos County. (Bush).

CLOVER MITE (Bryobia praetiosa) - GEORGIA - Many reports of annoyance in homes in Fulton and DeKalb Counties. (Blasingame). OKLAHOMA - Invading homes. (Bower).

RECENT IMPORTANT INTERCEPTIONS AT PORTS OF ENTRY

Golden Nematode in Horseradish from Europe: Due to the short supply of horseradish in this country as a result of last year's crop failure, the importation of horseradish from Europe continued at a high rate during December and early January. A total of 71 importations consisting of 10,896 containers arrived from Germany, Holland, England, Denmark, Yugoslavia, Italy, Poland and Sweden. 8 of these shipments from EUROPE, comprising a total of 1,873 containers were found to be carriers of cysts of the GOLDEN NEMATODE (Heterodera rostochiensis) during the period of December 16 to January 10. Appropriate plant quarantine safeguards were used in disposing of the contaminated shipments. (Whitlock).

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Weather Continued

Considerable thawing occurred in the North Central Interior, and on the 15th the upper Mississippi River was opened to navigation, the earliest opening in the past 15 years. In the Great Lakes navigation was extended to Buffalo, N.Y. and Alpena, Mich. (Summary Supplied by U.S. Weather Bureau).

SUMMARY OF INSECT CONDITIONS IN ARKANSAS IN 1953

Reported by Gordon Barnes

Cotton Insects: The cotton insect situation for Arkansas in the summer of 1953 was as usual, variable. Much of the May and June planted cotton was hit by THRIPS moving off small grain, but growth was still very rapid. PLANT BUGS, mostly cotton fleahopper and tarnished plant bug, were numerous in some fields. These pests were heavy enough to warrant control in many fields; however at picking time not much difference could be found in fields where plant bugs has been controlled and where they had not. CUTWORMS were about as usual with occasional fields having heavy infestations. Where proper seedbeds were prepared damage was not too severe, even where cutworms had been numerous on legumes previously. YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) infestation were heavier than usual. Some stands of cotton as well as soybeans and corn would have been ruined had control not been used. Heavy infestations could be found throughout season on grass around field margins and in fields. No damage could be found on the cotton plants. Many fields of sudan grass were very heavily infested in July and August. It appears that in Arkansas yellow-striped armyworm is not a serious pest of cotton, except to some extent on seedling cotton. BOLL WEEVIL (Anthonomus grandis) started out light in most fields with the exception of early cotton which had a high concentration of over-wintered weevils. Some infestations were high, but not to compare with 1950-51. Many of these fields were used effectively as trap crops. Showers coming just at the right time caused first generation weevils to be more numerous than might be expected in many fields. Infestations in southwest and southeast Arkansas ran high in untreated fields beginning in July. In the northern part of the State infestations were much slower building up because moisture came later. Many fields along Crowley's Ridge would have had 100 percent infestations by the 15th of July if they had not been watched closelv and insecticide applications made. Much of the open Delta in northeast Arkansas was never heavily infested. Weevil emergence was greatly varied from normal. Many fields having a rising infestation were treated at 25 to 30 percent infestation and the infestation knocked out with one application.

Use of insecticides and dry weather continuing late in the season almost stopped weevil migration and much of the late cotton was not heavily infested until the crop was almost made. SPIDER MITES were serious in some fields. . In the upper Arkansas Valley where conditions remained very dry, mites were serious over the entire area. Insecticides were used too early in many of the fields in this area upsetting the balance, causing infestation to be even heavier. BOLLWORMS (*Heliothis* spp. et al) were not as serious as in 1951 and 1952. A large acreage of corn with some of it silking throughout July and August protected most fields until late in the season. APHID infestations were found in many fields. Infestations occurred in several fields where insecticides had not been used. In most cases, natural control was obtained before serious damage occurred. Light infestations of COTTON LEAFWORM (*Alabama argillacea*) occurred in some fields. No widespread control was necessary. Insecticide usage was below normal, with 27,509,734 pounds dust or dust equivalent being used. This is below the total usage of 1952 and considerably lower than the year before. In 1952 quite a bit of the total usage was on soybeans; however, this was not the case in 1953.

Field Crop Other Than Cotton: ARMYWORM (*Pseudaletia unipuncta*) infestations were the lightest in several years. A few local outbreaks in northeast Arkansas, limited mostly to south and north Mississippi counties. YELLOW-STRIPED ARMYWORM occurred in outbreak numbers in a number of fields of sudan and other pastures. RICE WATER WEEVIL (*Lissorhoptrus simplex*) caused damage in a few rice fields, but was generally lighter than usual. BEAN LEAF BEETLE (*Cerotoma trifurcata*) occurred in outbreak numbers in north and south Mississippi counties. No appreciable damage was done, controls effective. GRASSHOPPERS were numerous in northwest Arkansas. CHINCH BUG (*Blissus leucopterus*) outbreaks occurred on corn and rice in northeast area. SOUTHWESTERN CORN BORER (*Diatraea grandiosella*) caused heavy damage to corn in western counties.

Fruit Insects: Late freezes ruined the apple crop and there was little fruit left for CODLING MOTH (*Carpocapsa pomonella*) to get through the summer on. Peaches escaped serious insect troubles. PLUM CURCULIO (*Conotrachelus nenuphar*) infestations were lightest in several years, especially in the Arkansas Valley area. Harvest counts in 47 commercial orchards indicated that only 0.3 percent of the fruit was injured in this area. ORIENTAL FRUIT MOTH (*Grapholitha molesta*) infestations were about the same as in 1952, with approximately 2.3 percent of the harvested fruit showing visible injury. This is considerably less than an average year. CATFACING injury was a little lighter than average with approximately 3.4 percent of the fruit catfaced at harvest. Two orchards in the Crowley's Ridge area had an injurious infestation of MITES. No infestations reported in other areas. SCALE infestations continued light with scattered infested trees in a few orchards. A number of orchards were heavily infested with PEACHTREE BORERS, especially those not treated in fall of 1952. WALNUT CATERPILLARS defoliated most of the walnut trees in northwest Arkansas.

Livestock Insects: TICK infestations were lighter than usual. HORSE FLIES were numerous over much of State. HORN FLIES were about the same as last year. CATTLE GRUBS continued to be serious in parts of the State where they occur. CATTLE LICE infestations were heavy on some cattle. HOUSE FLIES were very numerous throughout the season.

* *

New Jersey Fall Survey of Insects on Alfalfa - 1953

Reported by L. G. Merrill

A total of fifty-two fields in fourteen counties were surveyed between November 2, 1953 and January 6, 1954. The weather was dry and temperatures were generally mild with no heavy freezes until December 17 when temperature fell to low twenties.

ALFALFA WEEVIL (*Hypera postica*), a new pest of yet unknown potential in New Jersey, is known to infest alfalfa in Cumberland, Cape May, Gloucester, Camden, Salem, and Burlington Counties. No adult or larvae were found in 5,200 sweeps in fourteen counties.

Apparently a survey of adults by net sweeping at the time of this survey may be too late to be of any use as most adults had entered hibernation quarters. Negative results, however, should not be taken as an indication of no infestation.

CLOVER LEAF WEEVIL (*Hypera punctata* - Heaviest populations of this insect, which is of occasional economic importance, were found in areas of Mercer, Hunterdon, Somerset and Warren Counties. If dry weather predominates in the spring of 1954, damage to alfalfa and clover can become of economic value.

MEADOW SPITTLEBUG (*Philaenus leucophthalmus*) - The northern counties of Hunterdon, Warren, Morris and Somerset showed highest egg population. (See CEIR, Vol. 4, No. 8, p. 152; No. 11, p. [illegible]14). Sussex County did not have as many egg masses as the other north Jersey counties. Monmouth, Middlesex and Burlington had low egg counts. In south Jersey only Gloucester County had an egg mass count approaching the northern New Jersey count. In the absence of pea aphid build-up in the spring, treatments in south and central Jersey may not be worth-while except locally, where nymphs of spittlebug may be found in numbers exceeding twenty-five per square foot.

PEA APHID (*Macrosiphum pisi*) - Considerable numbers of eggs were found in the northern counties and in spite of the heavy aphid build-up in central Jersey, relatively few eggs were found at time of the survey. Hence, the overwintering population will not necessarily be large nor prospects for a heavy aphid infestation great in 1954 in central Jersey, unless conditions are exceptionally favorable.

* *

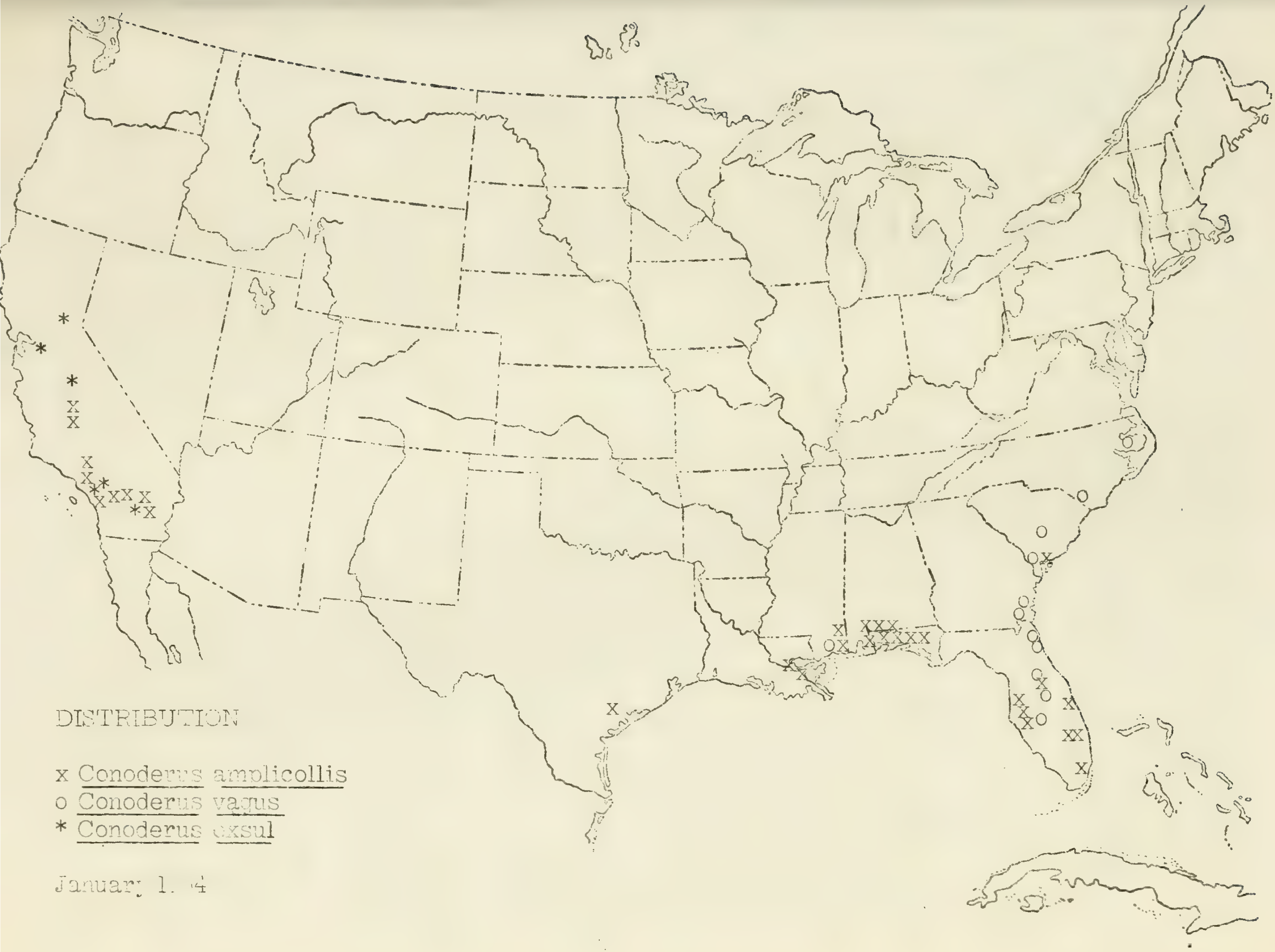
Distribution of Several Introduced Species of Wireworms

by M. C. Lane

Wireworms are of primary importance as potential economic pests, but have not been considered in the past as being easily introduced into the United States by ordinary avenues of commerce. However, there is much evidence in recent years to disprove this assumption. The records of the Plant Quarantine Branch have shown many interceptions of both larvae and adults at ports of entry. This report merely attempts to show the present distribution of several economic species or potentially economic species introduced probably since 1900.

1. Gulf wireworm, *Conoderus amplicollis* Gyll. (formerly called *Heteroderes laurenti* Guer.), has been an increasingly serious pest of vegetable crops in the southeastern states since 1927. It was first reported on by Cockerham and Deen in 1936 (Jour. Econ. Ent. 29: 288) who gave the results of several years' study of its distribution and biology. The earliest dated specimen seen is May, 1909, at Mobile, Alabama, and since that time it has become distributed along the Gulf Coast from Florida to Houston, Texas, and north along the Atlantic Coast, at least to Charleston, South Carolina, and probably farther. It has been found as larvae damaging crops in many places in Alabama, Florida, Mississippi, and South Carolina. The adults come to lights at night and are collected easily in this manner when present in numbers. This same species was reported by Stone (reference not found) in 1938 from Huntington Park (Los Angeles), California, as reared from larvae. Since that date it has been found repeatedly and increasingly, until it is now known to be present in San Diego; Los Angeles County, 7 places; Riverside County, 2 places; San Bernardino County; and Kern County, 3 places, (near Bakersfield), all in southern California. Specimens have been seen from Argentina, Brazil, Venezuela, Puerto Rico, and Bermuda Island, and compared with those from both sections of the United States. Little taxonomic variation was shown. Gyllenhal described *Conoderus* (*Elater*) *amplicollis* in 1808 from the Island of St. Bartholemy, just south of Puerto Rico. Blatchley (Can. Ent. 57: 153) described *Monocrepidius fuscosus* in 1925 and Fall (Can. Ent. 61:56) described *Monocrepidius planidiscus* from Savannah, Georgia; St. Petersburg, Dunedin, and Homestead, Florida, in 1929. Examination of these types has shown them to be same as what we term *Conoderus amplicollis*. It will take an examination of the types of *C. amplicollis* and *laurenti* Guer. in Europe to determine the true name of this species.

2. *Conoderus vagus* Cand. (Elat. Nouv., V. p. 32) was described by Candeze in 1893 from Buenos Aires, Argentina. Notman (Brooklyn Ent. Soc., Bul. 17:107) in 1922 described *Heteroderes nicholsi* from Jacksonville, Florida (1919). Fall (Can. Ent. 61:55) in 1929 described *Monocrepidius difformis* from Savannah, Georgia (1927). These appear to be all the same wireworm species, which has within the



DISTRIBUTION

x Conoderus amplicollis
o Conoderus vagus
* Conoderus exsul

January 1. 4

last few years been reported from Charleston, South Carolina (Reid and Deen), and Hastings, Florida (Dobrovsky) as damaging vegetable crops, especially potatoes. Apparently this is another importation from South America into the southeastern states and is now found from Tampa, Florida to Chadbourne, North Carolina west to Biloxi, Mississippi, and along both the Gulf and Atlantic Coasts. Adults come to lights from May to September. The sexes are about equal and the females always carry at least a few mature eggs. This species is apparently spreading, and is becoming of serious economic importance.

3. *Conoderus exsul* Sharp (Ann. and Mag. Nat. Hist., 19 (4):20) was described by Sharp in 1877 from New Zealand. Subsequently, it has been collected from several of the Pacific Islands and appeared in the Hawaiian Islands about 1900. According to Williams (Handbook of the Insect... Hawaiian Sugarcane Fields, p. 158, 1931) it is largely carnivorous, but feeds on sugarcane shoots when other food is not available. This insect was first reported in the United States by Graves (Pan. Pacific, Ent. 14 (2):91) in 1938 at Alameda, California, from adults collected in July, 1937, and larvae found the following spring feeding on grass roots. Since that time adults have been collected from other places near San Francisco Bay; Sacramento; Fresno County; Los Angeles County; Anza, Riverside County, and in three localities in San Diego County, California. The propensity of this species for damaging crops in the areas where it has been collected (mostly at lights) is not know, but it could be a potential pest.

4. Brown (Can. Ent. 65:174) described *Conoderus rudis* in 1933 from Grand Bay, Alabama, (Deen) 1930. This is probably another introduced species from South America. All specimens seen are from Gulf Coast areas of Alabama, Mississippi, and Louisiana, collected since 1930 in vegetable areas.

5. Another member of this group, *Conoderus bellus* Say, a common minor economic pest of the states east of the Mississippi River has recently been collected at lights in numbers at Riverside, California (Sept. 12, 1953 - Timberlake) and at San Diego, California (July, 1952 and May, 1953). I have had a series of this species labeled Los Angeles, California in my collection since 1934, but thought it might be a mis-labeling. This tiny species (adult 3/16 in. and larva 1/2 in. long) has been recorded as damaging sod and tobacco by Jewett in Kentucky (Ky. Bul. 472, 8pp., 1945) and could be considered potentially economic.

6. Two very serious economic wireworms of Europe, Agriotes obscurus L. and A. lineatus L., have been reported before as introduced into British Columbia and Nova Scotia, probably from England, around 1900. Insomuch as these species have been intercepted by quarantine inspectors many times both as larvae and adults, they could occur in the United States at any time. (submitted January 1954).